

tier high unless placed in bunks or so stacked as not to roll or otherwise create a hazard to employees.

(e) Before logs are slung up from the dock, they shall be stably supported to prevent spreading and to allow passage of slings beneath the load. When bunks or similar retaining devices are used, no log shall be higher than the stanchions or retaining members of the device.

**§ 1917.19 Movement of barges and railcars.**

Barges and railcars shall not be moved by cargo runners (running rigging) from vessel cargo booms, cranes or other equipment not suitable for the purpose.

**§ 1917.20 Interference with communications.**

Cargo handling operations shall not be carried on when noise-producing, maintenance, construction or repair work interferes with the communication of warnings or instructions.

[62 FR 40197, July 25, 1997]

**§ 1917.21 Open fires.**

Open fires and fires in drums or similar containers are prohibited.

**§ 1917.22 Hazardous cargo<sup>2</sup> (See § 1917.2(p)).**

(a) Before cargo handling operations begin, the employer shall ascertain whether any hazardous cargo is to be handled and shall determine the nature of the hazard. The employer shall inform employees of the nature of any hazard and any special precautions to be taken to prevent employee exposure, and shall instruct employees to notify him of any leaks or spills.

(b) All hazardous cargo shall be slung and secured so that neither the draft nor individual packages can fall as a result of tipping the draft or slacking of the supporting gear.

(c) If hazardous cargo is spilled or if its packaging leaks, employees shall be removed from the affected area until

the employer has ascertained the specific hazards, provided any equipment, clothing and ventilation and fire protection equipment necessary to eliminate or protect against the hazard, and has instructed cleanup employees in a safe method of cleaning up and disposing of a spill and handling and disposing of leaking containers. Actual cleanup or disposal work shall be conducted under the supervision of a designated person.

**§ 1917.23 Hazardous atmospheres and substances (see also § 1917.2 Hazardous cargo, material, substance or atmosphere).**

(a) *Purpose and scope.* This section covers areas in which the employer is aware that a hazardous atmosphere or substance may exist, except where one or more of the following sections apply: § 1917.22 Hazardous cargo; § 1917.24 Carbon monoxide; § 1917.25 Fumigants, pesticides, insecticides and hazardous preservatives; § 1917.73 Terminal facilities handling menhaden and similar species of fish; § 1917.152 Welding, cutting, and heating (hot work); and § 1917.153 Spray painting.

(b) *Determination of hazard.* (1) When the employer is aware that a room, building, vehicle, railcar, or other space contains or has contained a hazardous atmosphere, a designated and appropriately equipped person shall test the atmosphere before employee entry to determine whether a hazardous atmosphere exists.

(2) Records of results of any tests required by this section shall be maintained for at least thirty (30) days.

(c) *Testing during ventilation.* When mechanical ventilation is used to maintain a safe atmosphere, tests shall be made by a designated person to ensure that the atmosphere is not hazardous.

(d) *Entry into hazardous atmospheres.* Only designated persons shall enter hazardous atmospheres, in which case the following shall apply:

(1) Persons entering a space containing a hazardous atmosphere shall be protected by respiratory and emergency protective equipment meeting the requirements of subpart E of this part;

<sup>2</sup>The Department of Transportation and the United States Coast Guard apply requirements related to handling, storing and transportation of hazardous cargo (see 33 CFR part 126, 46 CFR, 49 CFR).

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(2) Persons entering a space containing a hazardous atmosphere shall be instructed in the nature of the hazard, precautions to be taken, and the use of protective and emergency equipment. Standby observers, similarly equipped and instructed, shall continuously monitor the activity of employees within such space;

(3) Except for emergency or rescue operations, employees shall not enter into any atmosphere which has been identified as flammable or oxygen deficient (less than 19.5% oxygen). Persons who may be required to enter flammable or oxygen deficient atmospheres in emergency operations shall be instructed in the dangers attendant to those atmospheres and instructed in the use of self-contained breathing apparatus, which shall be utilized.

(4) To prevent inadvertent employee entry into spaces that have been identified as having hazardous, flammable or oxygen deficient atmospheres, appropriate warning signs or equivalent means shall be posted at all means of access to those spaces.

(e) When the packaging of asbestos cargo leaks, spillage shall be cleaned up by designated employees protected from the harmful effects of asbestos as required by § 1910.1001 of this chapter.

[48 FR 30909, July 5, 1983, as amended at 49 FR 28551, July 13, 1984; 61 FR 5509, Feb. 13, 1996; 62 FR 40197, July 25, 1997; 65 FR 40938, June 30, 2000]

## § 1917.24 Carbon monoxide.

(a) *Exposure limits.* The carbon monoxide content of the atmosphere in a room, building, vehicle, railcar, or any enclosed space shall be maintained at not more than 50 parts per million (ppm) (0.005%) as an eight hour average area level and employees shall be removed from the enclosed space if the carbon monoxide concentration exceeds a ceiling of 100 ppm (0.01%).

(b) *Testing.* Tests to determine carbon monoxide concentration shall be made when necessary to ensure that employee exposure does not exceed the limits specified in paragraph (a) of this section.

(c) *Instrumentation.* Tests for carbon monoxide concentration shall be made by designated persons using gas detector tube units certified by NIOSH

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under 30 CFR part 11 or other measuring instruments whose accuracy is as great or greater.

(d) *Records.* A record of the date, time, location and results of carbon monoxide tests shall be available for at least thirty (30) days.

[48 FR 30909, July 5, 1983, as amended at 49 FR 28551, July 13, 1984; 61 FR 5509, Feb. 13, 1996; 62 FR 40197, July 25, 1997]

## § 1917.25 Fumigants, pesticides, insecticides and hazardous preservatives (see also § 1917.2 Hazardous cargo, material, substance or atmosphere).

(a) At any time that the concentration in any space reaches the level specified as hazardous by the fumigant manufacturer or by Table Z-1 of 29 CFR 1910.1000, whichever is lower, all employees shall be removed from the space and shall not be permitted to re-enter until such time as tests demonstrate that the atmosphere is safe.

(b) Tests to determine the atmospheric concentration of chemicals used to treat cargo shall be:

(1) Appropriate for the hazard involved;

(2) Conducted by designated persons; and

(3) Performed at the intervals necessary to ensure that employee exposure does not exceed the permissible exposure limit for the chemical involved.

(c) Results of any tests shall be available for at least 30 days. Such records may be entered on any retrievable medium, and shall be available for inspection.

(d) Chemicals shall only be applied to cargoes by designated persons.

(e) Only designated persons shall enter hazardous atmospheres, in which case the following provisions apply.

(1) Persons entering a space containing a hazardous atmosphere shall be protected by respiratory and emergency protective equipment meeting the requirements of subpart E of this part; and

(2) Persons entering a space containing a hazardous atmosphere shall be instructed in the nature of the hazard, precautions to be taken, and the use of protective and emergency equipment. Standby observers, similarly